

ABSTRACT

A method, system, and computer program product for detecting at least one nodule in a medical image of a subject, including identifying, in the medical image, an anatomical region corresponding to at least a portion of an organ of interest; filtering the medical image to obtain a difference image; detecting, in the difference image, a first plurality of nodule candidates within the anatomical region; calculating respective nodule feature values of the first plurality of nodule candidates based on pixel values of at least one of the medical image and the difference image; removing false positive nodule candidates from the first plurality of nodule candidates based on the respective nodule feature values to obtain a second plurality of nodule candidates; and determining the at least one nodule by classifying each of the second plurality of nodule candidates as a nodule or a non-nodule based on at least one of the pixel values and the respective nodule feature values. True-positive nodules are identified using linear discriminant analysis and/or a Multi-MTANN.

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